

WHAT IS CLAIMED IS

1. An electrolyte membrane/electrode assembly of a solid polymer electrolyte fuel cell, comprising an electrolyte membrane, and an air pole and a fuel pole provided to sandwich said electrolyte membrane therebetween, each of said electrolyte membrane, said air pole and said fuel pole including a polymer ion-exchange component, wherein said electrolyte membrane/electrode assembly has an ion-exchange capacity I_c in a range of $0.9 \text{ meq/g} \leq I_c \leq 5 \text{ meq/g}$, and a dynamic viscoelastic modulus at 85°C in a range of $5 \times 10^8 \text{ Pa} \leq D_v \leq 1 \times 10^{10} \text{ Pa}$.

2. An electrolyte membrane/electrode assembly of a solid polymer electrolyte fuel cell according to claim 1, wherein if the weight of said catalyst particles included in each of said air pole and said fuel pole is represented by W , and the weight of said polymer ion-exchange component included in each of said air pole and said fuel pole is represented by X , the ratio X/W of the weights W and X is in a range of $0.05 \leq X/W \leq 0.80$.

3. An electrolyte membrane/electrode assembly of a solid polymer electrolyte fuel cell according to claim 1 or 2, wherein said polymer ion-exchange component is an aromatic hydrocarbon polymer ion-exchange component free of fluorine and soluble in a solvent.

4. An electrolyte membrane/electrode assembly of a solid polymer electrolyte fuel cell according to claim 3, wherein said electrolyte membrane includes a first aromatic hydrocarbon ion-exchange component, and each of said air pole and said fuel pole includes a second aromatic hydrocarbon ion-exchange component, the solubilities of said first and second aromatic hydrocarbon ion-exchange components in a solvent being such that the solubility of said second aromatic hydrocarbon ion-exchange component is larger than that of said first aromatic hydrocarbon ion-exchange component.

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